

Amendments to the claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (original) A method for manufacturing pastas out of gluten-free raw materials, e.g., flour and/or semolina based on corn, rice, millet or barley, or out of starch, wherein the method involves the following steps:
 - a) Generating a raw material dry mixture;
 - b) Metering water with a temperature of 30°C to 90°C, in particular 75°C to 85°C into the raw material dry mixture with this raw material in motion, thereby producing a dough or moistened raw material mixture with a water content of 20% to 60%, in particular 38% to 45%;
 - c) Metering vapor with an initial vapor temperature of 100°C to 150°C, in particular 100°C to 120°C, into the dough with the dough or moistened raw material in motion;
 - d) Molding the thusly obtained dough into defined dough structures; and
 - e) Drying the molded dough structures into pastas, wherein the mass ratio between the metered water quantity and the metered vapor quantity ranges between 5:1 to 1:1.
2. (Original) The method according to claim 1, characterized in that the raw material dry mixture is moved in step b) in a mixer, in particular a two-screw mixer.
3. (Original) The method according to claim 1, characterized in that the dough is moved in step c) in a mixer, in particular a two-screw mixer.

4. (Original) The method according to claim 3, characterized in that the vapor exposure time in the mixer during step c) measures about 10 s to 60 s, preferably 20 s to 30 s.
5. (Currently Amended) The method according to claim 1 ~~or 2~~, characterized in that the moistened raw material mixture is moved in step c) on a conveyor belt, in particular a belt evaporator.
6. (Original) The method according to claim 5, characterized in that the vapor exposure time during step c) measures 30 s to 5 min.
7. (Currently Amended) The method according to ~~one of claims 1 to 6~~ claim 1, characterized in that at least one additive is metered into the raw material mixture.
8. (Original) The method according to claim 7, characterized in that the additive is metered into the raw material dry mixture in step a).
9. (Original) The method according to claim 7, characterized in that the additive is metered into the raw material dry mixture in step b).
10. (Currently Amended) The method according to ~~one of claims 7 to 9~~ claim 7, characterized in that at least one monoglyceride or one diglyceride or a hardened fat is used as the additive.
11. (Currently Amended) The method according to ~~one of claims 1 to 4~~ claim 1, characterized in that the vapor metered in step c) has a working pressure during evaporation of 2 bar to 5 bar.
12. (Currently Amended) The method according to ~~one of claims 1 to 5~~ claim 1, characterized in that vapor is metered in step c) with an initial vapor pressure of 1 bar to 10 bar.

13. (Currently Amended) The method according to ~~one of the preceding claims~~ claim 1, characterized in that the mass ratio of the metered water quantity to the metered vapor quantity ranges from 4:1 to 2:1, most preferably measuring 3:1.
14. (Currently Amended) A system for implementing a method for the manufacture of pastas out of gluten-free raw materials, in particular for implementing a method according to ~~claims 1 to 13~~ claim 1, with:
 - A mixing device for generating a raw material dry mixture;
 - A water metering device (~~3; 3'~~) for metering water into the raw material dry mixture;
 - A vapor metering device (~~6; 6'~~) for metering vapor into the moistened raw material mixture;
 - A raw material moving device (~~5, 6, 10a, 10b; 10a, 10b~~) for moving the raw material dry mixture and moistened raw material mixture;
 - A molding device (~~10e~~) for molding the dough obtained from the raw material mixture into defined dough structures; and
 - A pasta drying device (~~11, 12, 13, 14~~) for drying the molded dough structure into pasta, characterized in that the vapor can be metered at an initial vapor pressure of 1 bar to 10 bar.
15. (Original) The system according to claim 14, characterized in that the raw material moving device has a mixer, in particular a two-screw mixer.
16. (Original) The system according to claim 14, characterized in that the raw material moving device has a conveyor belt, in particular a belt evaporator.
17. (Currently Amended) The system according to claim 15, characterized in that the mixer is a mixing kneader (~~10a~~) with a casing, a raw material supply section, a raw dough discharge section, along with at least two cooperating working shafts that extend in a conveying direction or axial direction from the raw material supply section to the raw

dough discharge section within the casing, which accommodate mixing and kneading elements, along with force-conveying elements.

18. (Original) The system according to claim 17, characterized in that the area of the mixing kneader cavity upstream from its raw dough discharge section has a peristaltic dough kneading area, which has at least a respective narrowing axial cavity area, in which the free cross sectional area of the cavity between the surface of the working shafts and the inner wall of the casing as measured perpendicular to the axial direction decreases from a region with a large free cross sectional area to a region with a small free cross sectional area along the axial direction.
19. (Currently Amended) The system according to claim 17-~~or 18~~, characterized in that the mixing kneader has an area upstream from its peristaltic dough kneading area for mixing and conveying dough, in which axial areas with conveying screws and axial areas with mixing blocks are arranged on the working shafts consecutively along the conveying direction.
20. (Currently Amended) The system according to ~~one of claims 17 to 19~~ claim 17, characterized in that the mixing kneader preferably has another area upstream from its peristaltic dough kneading area for tumbling or working the dough, in which tumbling and working screws are arranged on the working shafts along the conveying direction, with passages extending in an axial direction being located in their screw webs, establishing a fluidic connection between adjacent windings of a spiral.
21. (Original) The system according to claim 20, characterized in that the passages are arranged like a gap at the comb of the screw webs.
22. (Currently Amended) The system according to claim 20-~~or 23~~, characterized in that the passages are arranged like a window between the core and the comb of the screw webs.

23. (Currently Amended) The system according to ~~one of claims 18 to 22~~ claim 18, characterized in that the surface of the working shafts and/or that of the inner wall of the casing can be provided with an anti-adhesive layer, preferably made out of Teflon, in its peristaltic dough kneading area.
24. (Currently Amended) The system according to ~~one of claims 15 to 23~~ claim 15, characterized in that the raw material moving device has a dough press with an upstream mixing trough situated downstream from the two-screw mixer.
25. (Currently Amended) The system according to ~~one of claims 15 to 23~~ claim 14, characterized in that the raw material moving device has a single-screw extruder (10b) situated immediately downstream from the two-screw mixer (~~10a~~).
26. (Original) The system according to claim 25, characterized in that the single-screw extruder has a casing, a raw dough supply section, a dough discharge section, as well as a working shaft that extends in a conveying direction or axial direction from the raw material supply section to the raw dough discharge section within the casing, and accommodates force-conveying elements.
27. (Original) The system according to claim 26, characterized in that the cavity of the single-screw extruder has a peristaltic dough kneading area upstream from its dough discharge section, which has at least one respective narrowing axial cavity area, in which the free cross sectional area of the cavity between the surface of the working shaft and the inner wall of the casing as measured perpendicular to the axial direction decreases from a region with a large free cross sectional area to a region with a small free cross sectional area along the axial direction.
28. (Currently Amended) The system according to ~~one of claims 17 to 27~~ claim 17, characterized in that the mixing kneader has a casing that can be heated to between 40°C and 100°C, preferably between 50°C and 75°C.

29. (Currently Amended) The system according to ~~one of claims 25 to 27~~ claim 25, characterized in that the single-screw extruder has a casing that can be heated to between 20°C and 60°C, preferably to between 40°C and 50°C.
30. (Currently Amended) The system according to ~~one of claims 14 to 29~~ claim 14, characterized in that molding device (10e) has a press-molding head that can be heated to between 30°C and 60°C, preferably to between 40°C and 50°C.
31. (Currently Amended) The system according to ~~one of claims 14 to 30~~ claim 14, characterized in that all steps are monitored, regulated and controlled online during the process.
32. (Currently Amended) A gluten-free pasta product, in particular one manufactured according to a method based on ~~one of claims 1 to 13~~ claim 1, characterized in that the starch contained in the product swells from 50% to 100%, in particular 75% to 85%, wherein the starch grains contained in the product are for the most part intact.
33. (Original) The pasta product according to claim 32, characterized in that 60% to 80% of the starch grains contained in the product are intact or have not burst.
34. (Currently Amended) The pasta product according to ~~claims 32 or 33~~ claim 32, characterized in that it has a cooking loss of less than 5% of the dry mass
35. (Currently Amended) The pasta product according to ~~one of claims 32 to 34~~ claim 32, characterized in that it has a fat content of less than 1% of the dry mass.
36. (Currently Amended) The pasta product according to ~~one of claims 32 to 35~~ claim 32, characterized in that it is made out of gluten-free raw materials like flour and/or semolina based on corn, rice, millet or barley, or of starch.

37. (Original) A method for manufacturing pastas out of gluten-free raw materials, e.g., flour and/or semolina based on corn, rice, millet or barley, or out of starch, wherein the method involves the following steps:
- a) Generating a raw material dry mixture;
 - b) Metering water with a temperature of 30°C to 90°C, in particular 75°C to 85°C into the raw material dry mixture with this raw material in motion, thereby producing a dough or moistened raw material mixture with a water content of 20% to 60%, in particular 38% to 45%;
 - c) Metering vapor with an initial vapor temperature of 100°C to 150°C, in particular 100°C to 120°C, into the dough with the dough or moistened raw material in motion;
 - d) Molding the thusly obtained dough into defined dough structures; and
 - e) Drying the molded dough structures into pastas, wherein the mass ratio between the metered water quantity and the metered vapor quantity ranges between 5:1 to 1:1.